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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,547	06/14/2001	Yu-Li Chang	S01.12-0712	6844

7590 05/16/2003

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 05/16/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Handwritten signature

Office Action Summary

Application No.

09/881,547

Applicant(s)

CHANG ET AL

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 2-8, 10, 12, 13, 15, 16, 18, 21, 22 and 24-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 11, 14, 17, 19, 20 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

Election/Restriction

Applicants' election without traverse of Main Specie Group I (FIG. 5) and SubSpecie Group D (FIGS. 6-1 through 6-2) in Paper No. 8, filed April 28, 2003, is acknowledged.

The Applicants contend that "Claims 1, 7, 9, 11, 14, 17-23 and 25-28 read on the elected species and subspecies."

The Examiner maintains that claims 18, 21, 22 and 25-28 depend directly, or indirectly, from claim 16, which is drawn to a non-elected embodiment (Main Specie Group III, FIG. 7-2). As such, claims 18, 21, 22 and 25-28 are additionally being withdrawn as being directed to a non-elected embodiment.

It is further noted that the Applicants have elected claim 7, which depends from claim 6, which the Applicants contend is not readable on the elected embodiment.

As such claim 7 has also been withdrawn from consideration as being drawn to a non-elected embodiment.

Claims 1, 9, 11, 14, 17, 19, 20 and 23 have been examined on the merits, *infra*.

Claims 2-8, 10, 12, 13, 15, 16, 18, 21, 22 and 24-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No., filed April 28, 2003.

112 Second Statement of Statutory Basis

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 17 and 19, the phrase "the flow gate" (in line 1 of each claim), lacks positive antecedent basis with respect to its preceding base claim (i.e., claim 17).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 14, 17, 19, 20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawaguchi (JP 04-098671 A).

As per claims 1, 17 and 23, Kawaguchi (JP 04-098671 A) discloses a disc drive (e.g., FIGS. 1, 2, 7, etc.) comprising: a chassis (base 25, 32, etc.); at least one disc (1); a spindle assembly (2-6) rotationally supporting the at least one disc (1) relative to the chassis (25, 32) to form a flow field (flow of air caused by rotating discs (1) in proximity thereto) along a surface of the at least one disc (1) via rotation of the at least one disc (1); a head assembly (e.g., 7-9) including a suspension (8) supporting at least one head (7) positionable proximate to the disc

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surface; and a flow controller (e.g., 17) supported in the flow field along the disc surface and including a plurality of streamline flow passages (22) to reduce turbulence in the flow field.

As per claim 9, the flow controller (17) includes a block structure forming the plurality of streamline flow passages (22) (e.g., see, *inter alia*, FIG. 3).

As per claim 14, wherein the streamline flow passages (22) are angled between an inlet (e.g., see vertical inlet channel for block (17) as depicted in FIG. 3) and an outlet (outlet of (22) as seen also in FIG. 3) of the flow passages to redirect the flow field.

Additionally, as per claim 17, the head assembly (7-9) is supported relative to the surface of the at least one disc (1) to read data from or write data to the at least one disc (1); and wherein the flow field controller (17) constitutes a means for controlling flow along the flow field for reducing turbulent flow along the surface of the at least one disc (1).

As per claim 19, the flow gate (17) is supported upstream of flow of the flow field to the head assembly (7-9) (e.g., see, *inter alia*, FIG. 7(a)).

As per claim 20, the flow gate (17) is supported downstream of flow of the flow field from the head assembly (7-9) (e.g., see, *inter alia*, FIG. 7(a), 7(b)).

Additionally, as per claim 23, the flow gate controller (17) is construed as a flow device supported in the flow field and including a plurality of streamline flow passages (22) to reduce flow turbulence in the flow field.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi (JP 04-098671 A).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

See the description of Kawaguchi (JP 04-098671 A), *supra*.

As per claim 11, Kawaguchi (JP 04-098671 A) discloses a width of the flow controller (17) as extending between inner and outer positions of the head assembly to condition flow to the head assembly (e.g., see *inter alia*, FIG. 7).

As per claim 11, however, Kawaguchi (JP 04-098671 A) does not expressly show wherein the head assembly (7-9) is pivotally supported to move between an inner position and an outer position.

Official notice is taken that pivotally mounted head assemblies are notoriously old and well known in the art.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the disc drive of Kawaguchi (JP 04-098671 A) with a pivotally mounted head assembly, as is common in the art.

The rationale is as follows: It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the disc drive of Kawaguchi (JP 04-098671 A) with a pivotally mounted head assembly, as is common in the art, in lieu of a linear actuator, in order to reduce the size of the disc drive, by allowing the actuator assembly to be moved closer to the disc via pivotal attachment of an actuator bearing, such advantages of pivotal mounting being well known, established and appreciated in the disc drive art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

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William J. Klimowicz
Primary Examiner
Art Unit 2652

WJK
May 7, 2003